

Mr. Michael Birch
Guardian Automotive Trim, Inc.
P. O. Box 5109
Evansville, Indiana 47716-5109

Re: 163-11437-00017
Minor Source Modification to:
Part 70 permit No.: T163-6502-00017

Dear Mr. Birch:

Guardian Automotive Trim, Inc. was issued a Part 70 operating permit T163-6502-00017 on January 19, 1999 for a stationary automotive decorative trim coating operation. An application to modify the source was received on October 7, 1999. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

- (19)(b) One (1) new decorative chrome electroplating line, using a wetting agent for Particulate Matter (PM) and chromic emissions control; and
- (c) Seven (7) new Vannaire's scrubbers, IDS1 through S7 which are voluntarily installed to control the water vapor from the plating line, that causes corrosion to process equipment and building roofs.
- (20) - means as is in the Part 70 permit.
- (21) -
- (22) One (1) new natural gas-fired boiler, with a heat input rate not to exceed 19 million British Thermal Units per hour (mmBtu/hr); and
- (23) Five (5) new natural gas-fired air make-up units, with a total heat input rate not to exceed 36 mmBtu/hr.

The following construction conditions are applicable to the proposed project:

- General Construction Conditions
- 1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Management (OAM).
- 2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
- 3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.
6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

The proposed operating conditions applicable to these emission units are attached to this Source Modification approval. These proposed operating conditions shall be incorporated into the Part 70 operating permit as an administrative amendment in accordance with 326 IAC 2-7-10.5(l)(1) and 326 IAC 2-7-11.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter call (800) 451-6027, press 0 and ask for Aida De Guzman or extension (3-4972), or dial (317) 233-4972.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments

APD

cc: File -Vanderburgh County
U.S. EPA, Region V
Vanderburgh County Health Department
Evansville EPA
Southwest Regional Office
Air Compliance Section Inspector - Scott Anslinger
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

**PART 70 MINOR SOURCE MODIFICATION
OFFICE OF AIR MANAGEMENT
and Evansville, EPA**

**Guardian Automotive Trim, Inc.
601 North Congress Avenue
Evansville, Indiana 47715**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Minor Source Modification No.:163-11437-00017	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

Section D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

- (19)(b) One (1) new decorative chrome electroplating line, using a wetting agent for Particulate Matter (PM) and chromic emissions control; and
- (c) Seven (7) Vannaire's scrubbers, IDS1 through S7 which are voluntarily installed to control the water vapor from the plating line, that causes corrosion to process equipment and building roofs.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 General Provisions Relating to HAPs [326 IAC 20-1-1][40 CFR Part 63, Subpart A]

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 63, Subpart N.

D.2.2 Chromium Electroplating NESHAP [326 IAC 20-8-1][40 CFR Part 63, Subpart N]

This facility is subject to 40 CFR Part 63, Subpart N, which is incorporated by reference as 326 IAC 20-8-1. A copy of this rule is attached.

- (a) During tanks operation, the Permittee shall control chromium emissions discharged to the atmosphere from the electroplating lines by not allowing the surface tension of the electroplating bath contained within each tank to exceed forty-five (45) dynes per centimeter (dynes/cm) (3.1×10^{-3} pound-force per foot [lbf/ft]) at any time during operation of the tanks.

Pursuant to 40 CFR 63.343(c)(5)(i), the Permittee has accepted 45 dynes/cm as the maximum surface tension value that corresponds to compliance with the applicable emission limitation, 0.01 mg/dscm (4.4×10^{-6} gr/dscf) in lieu of establishing the maximum surface tension during an initial performance test.

- (b) The following work practice standards for the tanks are also applicable:
 - (1) At all times, including periods of startup, shutdown and malfunction, the Permittee shall operate and maintain the tanks, fume suppressant, and monitoring equipment in a manner consistent with good air pollution control practices, consistent with the Operation and Maintenance Plan (OMP) required by Condition D.2.4.
 - (2) Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the OMP required by Condition D.2.4.
 - (3) Determination of whether acceptable operation and maintenance procedures are being used will be based on the information available to IDEM, OAM, which may include, but is not limited to, monitoring results; review of the OMP, procedures and records; and inspection of the source.

- (4) Based on the results of the determination made under Condition D.2.2(b)(3) above, IDEM, OAM may require that the Permittee make changes to the OMP. Revisions may be required if IDEM, OAM finds that the plan:
 - (A) Does not address a malfunction that has occurred;
 - (B) Fails to provide for the operation of the tanks, air pollution control techniques (i.e., fume suppressant), or process monitoring equipment during a malfunction in a manner consistent with good air pollution control practices; or
 - (C) Does not provide adequate procedures for correcting malfunctioning process equipment, air pollution control techniques, or monitoring equipment as quickly as practicable.

D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan (PMP), in accordance with Section B.13 - Preventive Maintenance Plan, of this permit, is required for the electroplating line.

D.2.4 Operation and Maintenance Plan [326 IAC 20-8-1] [40 CFR 63.342(f)(3)]

- (a) An Operation and Maintenance Plan (OMP), in accordance with 40 CFR 63.342(f)(3), shall be prepared and implemented no later than the compliance date. The OMP shall specify the operation and maintenance criteria for the electroplating line, fume suppressant, and monitoring equipment, and shall include the following elements:
 - (1) Manufacturers recommendations for maintenance of the stalagmometer;
 - (2) A standardized checklist to document the operation and maintenance criteria for the tanks, fume suppressant, and monitoring equipment;
 - (3) Procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions do not occur;
 - (4) A systematic procedure for identifying malfunctions of the tanks, fume suppressant, and monitoring equipment; and for implementing corrective actions to address such malfunctions;
- (b) If the OMP fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the Permittee shall revise the OMP within forty five (45) days after such an event occurs.
- (c) Recordkeeping associated with the OMP is identified in Condition D.2.7. Reporting associated with the OMP is identified in Condition D.2.8.

Compliance Determination Requirements

D.2.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [40 CFR 63.344]

Initial compliance tests shall be performed for the new decorative electroplating line in item (19)(b) of the Facility Description Table of this Section in order to determine compliance with the emission limitations of 0.01 milligram per dry standard cubic feet (mg/dscf), or verify the 45 dynes/cm maximum surface tension of the bath, which corresponds to the 0.01 mg/dscf emission limitations. This tests shall be made upon start-up.

D.2.6 Monitoring to Demonstrate Continuous Compliance [326 IAC 20-8-1] [40 CFR 63.343 (c)(5) & (7)]

The Permittee shall monitor the surface tension of the electroplating baths in the electroplating lines. Operation of either tank at a surface tension of greater than 45 dynes per centimeter shall constitute noncompliance with the standards. The surface tension of each tank in operation shall be monitored according to the following schedule:

- (a) The surface tension shall be measured once every four (4) hours for the first forty (40) hours of operating time with a stalagmometer or a tensionmeter as specified in 40 CFR 63, Appendix A, Method 306B (Surface Tension Measurement and Record Keeping for Chromium Plating Tanks Used at Electroplating and Anodizing Facilities).
- (b) The time between monitoring can be increased if there have been no exceedances. Once there are no exceedances in forty (40) hours of operating time, the surface tension measurement may be conducted once every eight (8) hours of operating time. Once there are no exceedances during forty (40) hours of operating time, surface tension measurement may be conducted once every forty (40) hours of operating time on an ongoing basis or on an alternative monitoring schedule approved by IDEM, OAM until an exceedance occurs.

The source agrees to conduct surface tension measurements, at a minimum, once each day of operation provided there are no more than forty (40) hours of operating time between successive surface tension measurements.

- (c) Once an exceedance occurs through tank surface tension measurement, wetting agent shall be added and the original monitoring schedule of once every four (4) hours must be resumed. A subsequent decrease in frequency of monitoring surface tension is allowed as stated in Condition D.2.6(b) above.
- (d) Once a tank or bath solution is drained and a new solution is added, the original surface tension monitoring schedule of once every four (4) hours must be resumed with a subsequent decrease in monitoring frequency allowed as stated in Condition D.2.6(b) above.
- (e) Operating time for chromium electroplating is that time when the rectifier is turned on and a part is in the tank. When there is no part in a tank for fifteen (15) or more minutes, that time will not be considered operating time; likewise, if the time between placing a part in the tank is less than fifteen (15) minutes, that time will be considered part of the operating time.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.7 Record Keeping Requirements [326 IAC 20-8-1] [40 CFR 63.346]

- (a) The Permittee shall maintain records to document compliance with Conditions D.2.2 and D.2.4 using the forms provided with this permit. These records shall be maintained in accordance with the Section C condition entitled "General Record Keeping Requirements" of this permit, be kept for a period of five (5) years, and include a minimum of the following:

- (1) Records of monitoring data required by 40 CFR 63.343(c) that are used to demonstrate compliance with the standard, i.e., surface tension of the bath in each tank, including the date and time the data are collected.
 - (2) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data, that occurs.
 - (3) The total process operating time of each tank, not both combined, during the reporting period.
 - (4) Records of the date and time that fume suppressants are added to the electroplating bath(s).
 - (5) All documentation supporting the notifications and reports required by 40 CFR 63.9 and 63.10 (Subpart A, General Provisions) and by Condition D.2.8.
- (b) The Permittee shall keep the written OMP on record after it is developed to be made available, upon request, by IDEM, OAM for the life of the tanks or until the tanks are no longer subject to the provisions of 40 CFR 63.340. In addition, if the OMP is revised, the Permittee shall keep previous versions of the OMP on record to be made available for inspection, upon request by IDEM, OAM for a period of five (5) years after each revision to the plan.

D.2.8 Reporting Requirements [326 IAC 20-8-1] [40 CFR 63.345 & 63.347]

- (a) In accordance with 40 CFR 63.345, a notification must be submitted to IDEM, OAM prior to any change, modification, or reconstruction of the facility (including conducting electroplating operations that fall under the definition of hard chromium electroplating) or construction of a new facility or source. Notification shall be submitted as soon as practicable, but at least thirty (30) days before the date construction or reconstruction commences.
- (b) In accordance with 40 CFR 63.347(c)(2), a notification of the date when construction or reconstruction was commenced shall be submitted to IDEM, OAM no later than thirty (30) calendar days after such date. In addition, a notification of the actual date of startup of the new or reconstructed facility or source shall be submitted to IDEM, OAM within thirty (30) calendar days after such date. Additional notifications required under 40 CFR 63.345 and 63.347 shall be specified as they become due.
- (c) The Permittee shall notify IDEM, OAM in writing of their intention to conduct a performance test at least sixty (60) calendar days before the test is scheduled to begin. Reports of performance test results shall be submitted no later than forty-five (45) days following the completion of the performance test, and shall be submitted as part of a notification of compliance status as described in 40 CFR 63.347(e), to the address listed in the Section C condition entitled "Performance Testing" of this permit.
- (d) If actions taken by the Permittee during periods of malfunction are inconsistent with the procedures specified in the OMP required in Condition D.2.4, the Permittee shall record the actions taken for that event and shall report by phone such actions within two (2) working days after commencing actions inconsistent with the OMP. This report shall be followed by a letter within seven (7) working days after the end of the event, unless the Permittee makes alternative reporting arrangements, in advance, with IDEM, OAM.

- (e) The Permittee shall submit a summary report to document the ongoing compliance status of the facility using the Ongoing Compliance Status Report form provided with this permit. The report shall contain the information specified in 40 CFR 63.347(g)(3) that is applicable.
 - (1) This report shall be submitted semiannually on a calendar year basis, unless otherwise directed by IDEM, OAM. The report shall be submitted within thirty (30) days after the end of each reporting period, which ends June 30 and December 31 respectively.
 - (2) If the monitoring data collected by the Permittee in accordance with Condition D.2.6 show that the emission limit has been exceeded, quarterly reports shall be submitted. Once the Permittee reports an exceedance, ongoing compliance status reports shall be submitted quarterly until a request to reduce reporting frequency, according to the procedures of 40 CFR 63.347(g)(2), is approved.

SECTION D.2a FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

- (22) One (1) new natural gas-fired boiler, with a heat input rate not to exceed 19 million British Thermal Units per hour (mmBtu/hr); and
- (23) Five (5) new natural gas-fired air make-up units, with a total heat input rate not to exceed 36 mmBtu/hr.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2a.1 Particulate Matter for Indirect Heating (PM) [326 IAC 6-2]

Pursuant to this 326 IAC 6-2-4, the particulate matter emissions from the new boiler with a heat input rate not to exceed 19 mmBtu/hr shall not exceed 0.43 pounds per million Btu. This PM limit shall be determined using the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where: Pt = Pounds of PM emitted per mmBtu heat input
Q = Total source operating capacity rating, mmBtu/hr

Compliance Determination Requirements

D.2a.2 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the Particulate Matter (PM) limit specified in Condition D.2a.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.2a.3 New Source Performance Standards (NSPS) 40 CFR § 60.48, Subpart Dc

Pursuant to 40 CFR § 60.48c, Subpart Dc, Subsections (a), (g) and (i), the new natural gas-fired boiler with a heat input rate not to exceed 19 mmBtu/hr shall comply with the following requirements:

- (a) Under Subsection (a) of § 60.48c, the Permittee shall submit notification of the date of construction, or reconstruction, anticipated startup and actual startup of the new boiler as provided by 40 CFR § 60.7. The notification shall include:
 - (1) The design heat input capacity of the new boiler and identification of the fuel to be combusted; and
 - (2) the annual capacity factor at which the Permittee anticipates operating the new boiler, based on all fuels fired and based on each individual fuel fired.
- (b) Under Subsection (g) of § 60.48c, the Permittee shall maintain records of the amounts of each fuel combusted during each month for the new boiler.

- (c) Under Subsection (i) of § 60.48c, all records required by § 60.48c shall be maintained by the Permittee for the new boiler for a period of two (2) years following the date of such record.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
and City of Evansville EPA**

**MINOR SOURCE MODIFICATION
CERTIFICATION**

Source Name: Guardian Automotive Trim, Inc.
Source Address: 601 North Congress Avenue, Evansville, Indiana 47715
Mailing Address: P.O. Box 5109, Evansville, Indiana 47716-5109
Part 70 Permit No.: T163-6502-00017
1st Minor Source Modification: T163-11437-00017

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

**MINOR SOURCE MODIFICATION
CHROMIUM ELECTROPLATING NESHAP
ONGOING COMPLIANCE STATUS REPORT**

Source Name: Guardian Automotive Trim, Inc.
Source Address: 601 North Congress Avenue, Evansville, Indiana 47715
Mailing Address: P.O. Box 5109, Evansville, Indiana 47716-5109
Part 70 Permit No.: T163-6502-00017
1ST Minor Source Modification: 163-11437-00017
Tank ID #: _____
Type of process: New Decorative Chrome Electroplating Line
Monitoring Parameter: Surface tension of the electroplating bath
Limits: 45 dynes per centimeter, which corresponds to the chromium concentration limit of 0.01 mg/dscm

This form is to be used to report compliance for the Chromium Electroplating NESHAP only.
The frequency for completing this report may be altered by the IDEM, OAM, Compliance Branch.

Companies classified as a major source: submit this report no later than 30 days after the end of the reporting period.
Companies classified as an area source: complete this report no later than 30 days after the end of the reporting period, and retain on site unless otherwise notified.

This form consists of 2 pages

Page 1 of 2

BEGINNING AND ENDING DATES OF THE REPORTING PERIOD:

TOTAL OPERATING TIME OF THE TANK DURING THE REPORTING PERIOD:

MAJOR AND AREA SOURCES: CHECK ONE

9 NO DEVIATIONS OF THE MONITORING PARAMETER ASSOCIATED WITH THIS TANK FROM THE COMPLIANT VALUE OR RANGE OF VALUES OCCURRED DURING THIS REPORTING PERIOD.

9 THE MONITORING PARAMETER DEVIATED FROM THE COMPLIANT VALUE OR RANGE OF VALUES DURING THIS REPORTING PERIOD (THUS INDICATING THE EMISSION LIMITATION MAY HAVE BEEN EXCEEDED, WHICH COULD RESULT IN MORE FREQUENT REPORTING).

AREA (I.E., NON-MAJOR) SOURCES OF HAP ONLY:

IF DEVIATIONS OCCURRED, LIST THE AMOUNT OF TANK OPERATING TIME EACH MONTH THAT MONITORING RECORDS SHOW THE MONITORING PARAMETER DEVIATED FROM THE COMPLIANT VALUE OR RANGE OF VALUES.

JAN	APR	JUL	OCT
FEB	MAY	AUG	NOV
MAR	JUN	SEP	DEC

HARD CHROME TANKS / MAXIMUM RECTIFIER CAPACITY LIMITED IN ACCORDANCE WITH 40 CFR 63.342(c)(2) ONLY:
LIST THE ACTUAL AMPERE-HOURS CONSUMED (BASED ON AN AMP-HR METER) BY THE INDIVIDUAL TANK.

JAN	APR	JUL	OCT
FEB	MAY	AUG	NOV
MAR	JUN	SEP	DEC

CHROMIUM ELECTROPLATING NESHA ONGOING COMPLIANCE STATUS REPORT

ATTACH A SEPARATE PAGE IF NEEDED

Page 2 of 2

IF THE OPERATION AND MAINTENANCE PLAN REQUIRED BY 40 CFR 63.342 (f)(3) WAS NOT FOLLOWED, PROVIDE AN EXPLANATION OF THE REASONS FOR NOT FOLLOWING THE PLAN AND DESCRIBE THE ACTIONS TAKEN FOR THAT EVENT:

DESCRIBE ANY CHANGES IN TANKS, RECTIFIERS, CONTROL DEVICES, MONITORING, ETC. SINCE THE LAST STATUS REPORT:

ADDITIONAL COMMENTS:

ALL SOURCES: CHECK ONE

- 9** I CERTIFY THAT THE WORK PRACTICE STANDARDS IN 40 CFR 63.342(f) WERE FOLLOWED IN ACCORDANCE WITH THE OPERATION AND MAINTENANCE PLAN ON FILE; AND, THAT THE INFORMATION CONTAINED IN THIS REPORT IS ACCURATE AND TRUE TO THE BEST OF MY KNOWLEDGE.
- 9** THE WORK PRACTICE STANDARDS IN 40 CFR 63.342(f) WERE NOT FOLLOWED IN ACCORDANCE WITH THE OPERATION AND MAINTENANCE PLAN ON FILE, AS EXPLAINED ABOVE AND/OR ON ATTACHED.

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

**Indiana Department of Environmental Management
Office of Air Management
and Evansville EPA**

**Technical Support Document (TSD) for a Part 70 Minor Source
Modification**

Source Background and Description

Source Name:	Guardian Automotive Trim, Inc.
Source Location:	601 North Congress Avenue, Evansville, Indiana
County:	Vanderburgh
SIC Code:	3089
Operation Permit No.:	T163-6502-00017
Operation Permit Issuance Date:	January 19, 1999
Minor Source Modification No.:	163-11437-00017
Permit Reviewer:	Aida De Guzman

The Office of Air Management (OAM) has reviewed a modification application from Guardian Automotive Trim, Inc. relating to the construction of the following emission units and pollution control devices:

- (19)(b) One (1) new decorative chrome electroplating line, using a wetting agent for Particulate Matter (PM) and chromic emissions control; and
 - (c) Seven (7) new Vannaire's scrubbers, IDS1 through S7 which are voluntarily installed to control the water vapor from the plating line, that causes corrosion to process equipment and building roofs.
- (20) - means as is in the Part 70 permit.
- (21) -
- (22) One (1) new natural gas-fired boiler, with a heat input rate not to exceed 19 million British Thermal Units per hour (mmBtu/hr); and
- (23) Five (5) new natural gas-fired air make-up units, with a total heat input not to exceed 36 mmBtu/hr.

History

On October 7, 1999, Guardian Automotive Trim, Inc. submitted an application to the OAM requesting to add additional chrome electroplating line, and associated equipment to their existing plant. Guardian Automotive Trim, Inc. was issued a Part 70 permit (T163-6502-00017) on January 19, 1999.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
S1	scrubber	10	4.33	41,680	ambient
S2	scrubber	10	4.7	55,198	ambient
S3	scrubber	10	4.7	55,552	ambient
S4	scrubber	10	4.8	58,912	ambient
S5	scrubber	10	4.3	46,368	ambient
S6	chrome electroplating scrubber	10	3.0	26,840	ambient
S7	scrubber	10	1.7	20,040	ambient

Recommendation

The staff recommends to the Commissioner that the Part 70 Minor Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on October 7, 1999. Additional information was received on November 16, 1999, and December 3, 1999.

Emission Calculations

- (a) Natural Gas Combustion Emissions: See Pages 1 and 2 TSD Appendix A for the boiler and air make-up units detailed emissions calculations
- (a) Chrome Electroplating Emissions:

Facility	Emission Factor (gr/dscf) SCC 3-09-010-28	Air Flow Rate (cfm)	PM/Chromic Acid Mist Emissions (tons/year)
Chrome Electroplating	1.2×10^{-6} with fume suppressant	26,840	0.00120

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	0.5012
PM-10	1.8012
SO ₂	0.1
VOC	1.4
CO	20.2
NO _x	24.1

HAP's	Potential To Emit (tons/year)
Chromium Compounds	0.00120
TOTAL	0.00120

Justification for Modification

The Part 70 Operating permit is being modified through a Part 70 Minor Source Modification. The proposed boiler and air make-up units will have a potential to emit NO_x greater than 10 tons per year but less than 25 tons per year (see above table of this TSD). Additionally, chrome electroplating line is also being proposed, which is a Title I modification subject to NESHAP as the most stringent applicable requirement. Pursuant to 326 IAC 2-7-10.5(d)(4) and (6) these emission units are subject to Minor Source Modification review.

County Attainment Status

The source is located in Vanderburgh County.

Pollutant	Status (attainment, maintenance attainment, or unclassifiable; severe, moderate, or marginal nonattainment)
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	not determined

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Vanderburgh County has been redesignated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Vanderburgh County has been classified as attainment or unclassifiable for all the other pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD Definition (based on previous approvals issued to the source):

Potential To Emit (tons/year)						
Construction Permit	PM	PM10	SO ₂	VOC	CO	NO _x
CP163-2106-00017 issued on April 3, 1992	-	-	-	246.0	-	-
CP163-8311-00017 issued on June 19, 1997	-	-	-	24.0	-	-
TOTAL	-	-	-	270.0	-	-

This existing source is a major stationary source because VOC, an attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

Potential to Emit (tons/year)							
Process/facility	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Boiler and air make-up units	0.50	1.8	0.1	1.4	20.2	24.1	0.0
Decorative Electroplating	0.00120	0.0012	-	-	-	-	0.00120
TOTAL	0.5012	1.8012	0.1	1.4	20.2	24.1	0.00120

This modification to an existing major stationary source is not major because the emission increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Federal Rule Applicability

- (a) New Source Performance Standards (NSPS)
- (1) 40 CFR § 60.40c - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Unit. This standard applies to steam generating units for which construction, modification, or reconstruction is commenced after June 9, 1989, and has a maximum design heat input capacity of 100 million British Thermal Units (mmBtu/hr) or less, but greater than 10 mmBtu/hr.

The one (1) natural gas-fired boiler, with a heat input rate not to exceed 19 mmBtu/hr is subject to § 60.48 Subsections (a), (g) and (l) of this NSPS.

- (a) Under Subsection (a) of § 60.48, the owner or operator of this boiler shall submit notification of the date of construction, or reconstruction, anticipated startup as provided by § 60.7 of this part. The notification shall include:

- (1) The design heat input capacity of the new boiler and identification of the fuel to be combusted; and
 - (2) The annual capacity factor at which the owner/operator anticipates operating the new boiler, based on all fuel fired and based on each individual fuel fired.
 - (b) Under Subsection (g) § 60.48, the owner/operator of the boiler shall maintain records of the amount of each fuel combusted during each month.
 - (c) Under Subsection (i) § 60.48, all records required in this section shall be maintained by the owner/operator of this boiler for a period of two (2) years following the date of such record.
- (2) The five (5) natural gas-fired air make-up units, with a total heat input not to exceed 36 mmBtu/hr are **not** subject to this NSPS, 40 CFR § 60.40c, because they are not boilers.
- (b) National Emission Standards for Hazardous Air Pollutants (NESHAPs)
The one (1) chrome electroplating line is subject to the National Emission Standards for Hazardous Air Pollutants, 326 IAC 14, (40 CFR 63.340, Subpart N). Pursuant to 40 CFR 63, Subpart N, and 326 IAC 20-1-1, the chromium electroplating operations are subject to the following conditions:
- (1) The surface tension of the chromium electroplating bath contained with the tank shall not exceed forty-five (45) dynes per centimeter at any time during the operation of the tank if a chemical fume suppressant containing a wetting agent is used to demonstrate compliance with the corresponding emission limit of 0.01 milligram per dry standard cubic meter (mg/dscm) .
 - (2) Each time that surface tension monitoring exceeds forty-five (45) dynes per centimeter, the frequency of monitoring must revert back to every four (4) hours of tank operation. After forty (40) hours of monitoring tank operation every four (4) hours with no exceedances, surface tension measurement may be conducted once every eight (8) hours of tank operation. Once there have been no exceedances during forty (40) hours of tank operation, surface tension measurement may be conducted once every forty (40) hours of tank operation on an ongoing basis, until an exceedance occurs.
 - (3) An alternative emission limit of 0.01 milligram per dry standard cubic meter (mg/dscm) will be applicable if the chromium electroplating bath does not meet the limit above.
 - (4) A summary report shall be prepared and submitted to IDEM semi-annually to document the ongoing compliance status of the chromium electroplating operation. If there are significant exceedance of chromium air emission limits (as defined in 40 CFR Part 63.347(h)(2)), then semiannual reports shall be submitted to:

Indiana Department of Environmental Management
Air Compliance Branch, Office of Air Management
Chromium Electroplating
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206
 - (5) The chromium electroplating operations shall be subject to the record keeping and reporting requirement as indicated in the chromium electroplating NESHAP.

State Rule Applicability -

- (a) 326 IAC 2-6 (Emission Reporting)
This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year oxides of nitrogen (NOx) for Vanderburgh County. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).
- (b) 326 IAC 5-1 (Visible Emissions Limitations)
Pursuant to 326 IAC 5-1-2 (Visible Emissions Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), visible emissions shall meet the following, unless otherwise stated in this permit:
- (a) Visible emissions shall not exceed an average of thirty percent (30%) opacity in twenty-four (24) consecutive readings as determined by 326 IAC 5-1-4,
- (b) Visible emissions shall not exceed sixty percent (60%) opacity for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) in a six (6) hour period.
- (c) 326 IAC 6-2 (PM Emissions Limit for Indirect Heating Units)
(1) The proposed one (1) natural gas-fired boiler, with a heat input rate not to exceed 19 mmBtu/hr is subject to 326 IAC 6-2-4 which mandates a PM emission limit using the following equation:
- $$Pt = \frac{1.09}{Q^{0.26}}$$
- $$= 0.43 \text{ lb/mmBtu}$$
- Where: Pt = Pounds of PM emitted per mmBtu heat input
Q = Total source operating capacity rating, mmBtu/hr
= Existing boilers heat input, 2 boilers * (8.728 mmBtu/hr) + new boiler, 19 mmBtu/hr
= 36.45 mmBtu/hr
- (2) The five (5) natural gas-fired air make-up units, with a total heat input not to exceed 36 mmBtu/hr are **not** subject to 326 IAC 6-2 because they are not sources of indirect heating.
- (c) 326 IAC 2-4.1-1 (New Source Toxic Control)
The chrome electroplating line is not subject to this rule, because it is not major source for HAPs.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 **Minor Source Modification No. 163-11437-00017**.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler

Page 1 of 2 TSD App A

Company Name Guardian Automotive Trim, Inc.
Address City 601 North Congress Ave., Evansville, IN 47715
Minor Source 163-11437-00017

1 boiler not to exceed
a heat input of 19 mmBtu/hr

Reviewer: Aida De Guzman
Date: November 17, 1999

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

19.0

166.4

Pollutant						
Emission Factor in lb/MMCF	PM* 1.9	PM10* 7.6	SO2 0.6	NOx 100.0 **see below	VOC 5.5	CO 84.0
Potential Emission in tons/yr	0.2	0.6	0.0	8.3	0.5	7.0

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
above
emission

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler

Page 2 of 2 TSD App A

Company Name Guardian Automotive Trim, Inc.
Address City 601 North Congress Ave., Evansville, IN 47715

Five (5) air make-up units with **Minor Source Mod.: 163-11437**

heat input not to exceed 36 mmBtu/h **Reviewer: Aida De Guzman**

Date: November 17, 1999

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

36.0

315.4

Pollutant						
Emission Factor in lb/MMCF	PM* 1.9	PM10* 7.6	SO2 0.6	NOx 100.0 **see below	VOC 5.5	CO 84.0
Potential Emission in tons/yr	0.3	1.2	0.1	15.8	0.9	13.2

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
above
emission